RESEARCH AND DEVELOPMENT
PROJECT APPROVAL REQUEST

I. Identification

The development of a "Twin Light Source, Stereoscopic Light Table" is proposed under a fixed-price contract with [redacted] This item was included in the P&DS/NPIC Contract Procurement Schedule for Fiscal Year 1965 under Category II, Viewers and Other Interpretation Equipment. It is specifically comprehended in the entry titled "Improved Viewer Components."

II. Objectives

This development will involve the fabrication of one prototype twin light source, stereoscopic light table and one set of directly reproducible manufacturing drawings and specifications. The project should result in a sophisticated prototype built with proper attention to human engineering and which will be evaluated under operational conditions.

The main purpose for this development is to obtain a stereoscopic light table that will enable the operator to vary the illumination intensity of each of the viewing channels. The table can be tilted to positions convenient for the operator.

III. Background

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Light tables which are currently being used and which have a support for a stereoscope do not have sufficiently large, independently illuminated viewing areas and cannot be tilted to positions convenient for the user. If stereo-pairs have different densities or require differing magnifications, it has been impossible for the operator to achieve balanced illumination. The development will allow the operator to vary the intensity of the two independent light sources.

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IV. Technical Specifications

The twin light source, stereoscopic light table will be a prototype device incorporating the following characteristics:

a. The light table may be tilted from 0^{o} -45^{o}.

b. For use with stereo chips, it will have an adequate viewing area divided by a removable partition into two independent light sources for viewing of stereo-pairs which differ in densities or scale.

c. The light sources are to be high-intensity, cold, cathode grids which will provide maximum screen brightness and evenness of illumination. Maximum intensity for each light source will be 2000 foot-lamberts.

d. The design is to incorporate a highly reliable dimming control by which brightness can be varied over the entire range (2000-200 foot-lamberts) without flickering.

e. The tilting mechanism is a captive slotted linkage which provides continuous adjustment throughout the 45° range.

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